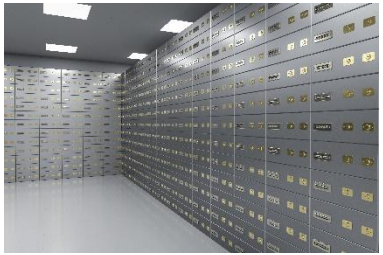
Researched, Designed &
Manufactured in
INDIA
50+ Countries | 1M+ Customers
MATRIX
TELECOM | SECURITY
Matrix Access Control Solution
New-age Access Control Solutions for Modern Organizations

Why Matrix Access Control?

Why Access Control? Security

Material and Inventory

Portable Equipment & Machinery



Cash and Precious Metals

Data and IT

```
export default class TodoList extends Component {
    state = { todos: [], text: '' };
    setText = e => {
        this.setState({ text: e.target.value });
    };
    addTodo = () => {
        let { todos, text } = this.state;
        todos = todos.concat({ text });
        this.setState({ todos, text: '' });
    };
    render({ }, { todos, text }) {
        return (
            <form onSubmit={this.addTodo} action="javascript:">
                <input value={text} onInput={this.setText} />
                <button type="submit">Add</button>
                <ul>
                    { todos.map( todo => {
                        <li>{todo.text}</li>
                    }) }
                </ul>
            </form>
        );
    }
}
```

Intellectual Property: Software, Documents, Designs, Formulae, etc.

Why Access Control? Safety of People

- Field/Remote/Secluded Offices
- Sensitive Operations
- Hazardous Areas
- Break-Ins; Robberies
- Accidents, etc.

Why Access Control? Control and Response

Users:
Who has Access to Defined Area

Locations:
Where Location/ Premise is Accessible

Time:
When to Access Specific Area

Response:
How Notifications and Alerts get Triggered

Why Access Control? Productivity

Schedule Entry-Exit as per Opening/Closing Hours

Plan Manpower Availability (Who, Where and When)

Trace People and their Whereabouts (Gym, Cafeteria, etc.)

Control Occupancy

Why Access Control? Compliance

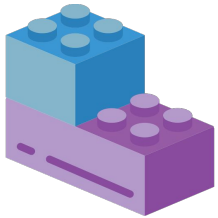
- Hazardous Area
- Process Compliance
- Security Compliance

MATRIX COSEC ACS Introduction and Differentiators

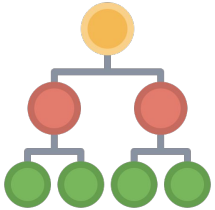
Matrix ACS Introduction

- End-to-End Access Control Solution (Panel, Controllers, Readers, etc.)
- RFID Cards, Fingerprint, Face and Mobile as User Credentials
- Distributed Architecture on Ethernet, CAT6 and PoE+
- Simple to Deploy and Use
- Flexible Access Policies
- 25+ Access Control Features
- Web based Configuration (Server PC or Software Not Required)
- Open Integration

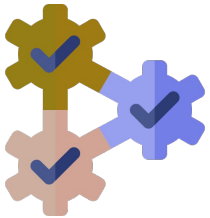
Matrix ACS Differentiators: Single-Source Solution



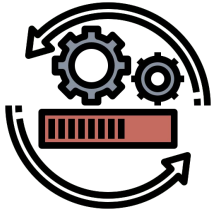
Matrix Offers All ACS Building Blocks



Panels, Controllers, Readers, Software, Apps

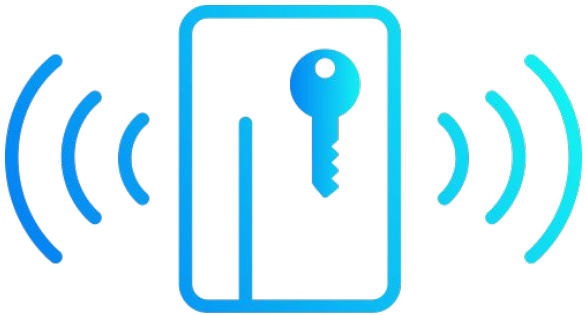


Tighter Integration

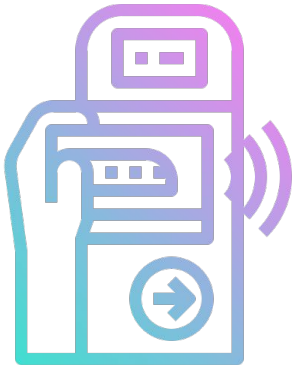


Seamless Interoperation

Matrix ACS Differentiators: New-age RF Card Credentials



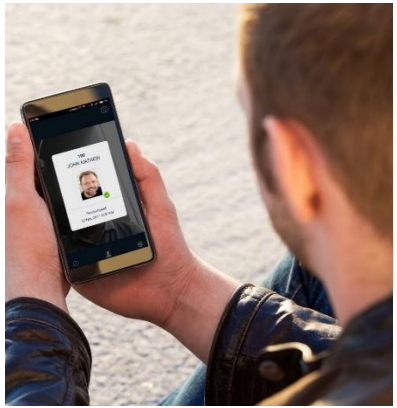
Proximity



Smart Card

Matrix ACS Differentiators: New-age Mobile Credentials

Mobile PIN



Mobile Face Recognition

Mobile BLE

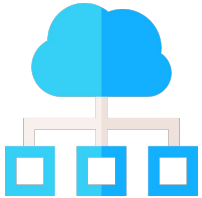
Mobile QR Code

Matrix ACS Differentiators: New-age Biometric Credentials

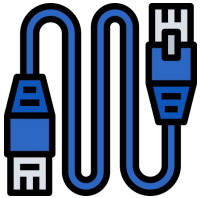
Fingerprint

Face Recognition

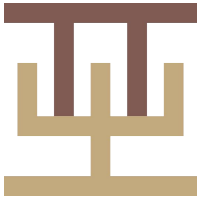
Matrix ACS Differentiators: Core-to-Door IP Technology



IP Networking



Universal CAT6 Structured Cabling

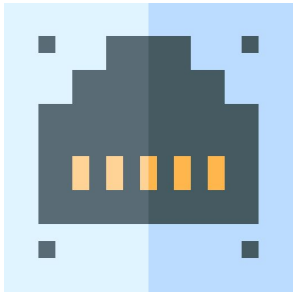


Standardization of Infrastructure and Skills

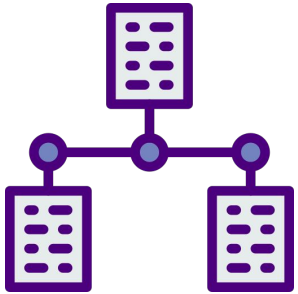
Zero Maintenance and Higher Uptime

Lower Cost

Matrix ACS Differentiators: Multiple Connectivity Options



Panel to Controllers: Ethernet with PoE+ and RS-485



Controllers to Readers: Wiegand, RS-485 and RS-232

External Wifi, BLE or 3G/4G USB Dongle

Matrix ACS Differentiators: PoE+ Panels and Controllers

- PoE+ for Panel, Controllers, Readers and Locks
- Centralized Power Supply and UPS
- Eliminate Separate Power Supply Cabling
- Quick Installation
- Industry-Standard Infrastructure
- Lower Cost
- Lower Maintenance
- Higher Uptime

Matrix ACS Differentiators: Support for Third-Party Readers

- Industry-Standard Wiegand Interface for Third-party Readers
- New Installations: Flexibility to Choose Third-Party Readers
- Upgrades and Expansion: Reuse Existing Readers to Protect Investment
- Flexibility to Deploy Cards, Face, Fingerprint and Mobile Credentials
- No Need to Change Cards or Re-Enroll All Users
- Coexistence of Third-Party and Matrix Readers
- Easy Migration to Matrix ACS

Matrix ACS Differentiators: Plug-and-Play

- Standard, Simple CAT6 Cabling
- No Need for Power Supply Cabling
- Power and UPS through PoE Switches
- No Server PC or Software Installation
- Easy Simple Web Configuration
- Auto Search Controllers and Readers
- Automatic Distribution of User Credentials
- Lower Installation Time and Cost
- Intuitive and Easy Configuration

Matrix ACS Differentiators: Encrypted Communication

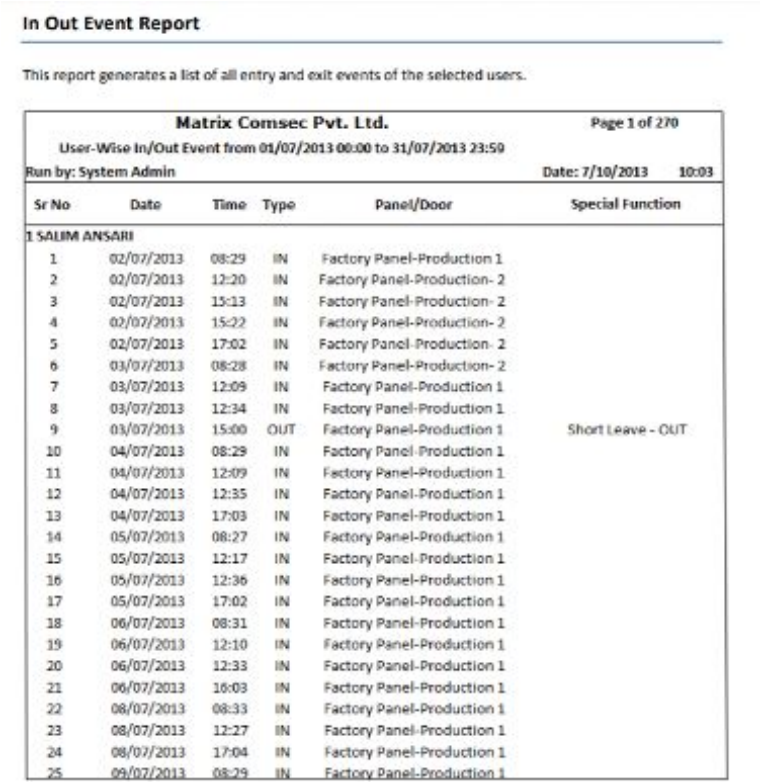
SSL based Encryption

Snoop-Proof and Hack-Proof

Higher Security

Matrix ACS Differentiators: Events Management

- 500,000 Entry/Exit Events Log
- Events View and Download Options
- Automatic and Manual Backup Options
- Events Backup and Restore
- Backup over FTP
- Easy and Quick Analysis
- Security of Events Data



In Out Event Report

This report generates a list of all entry and exit events of the selected users.

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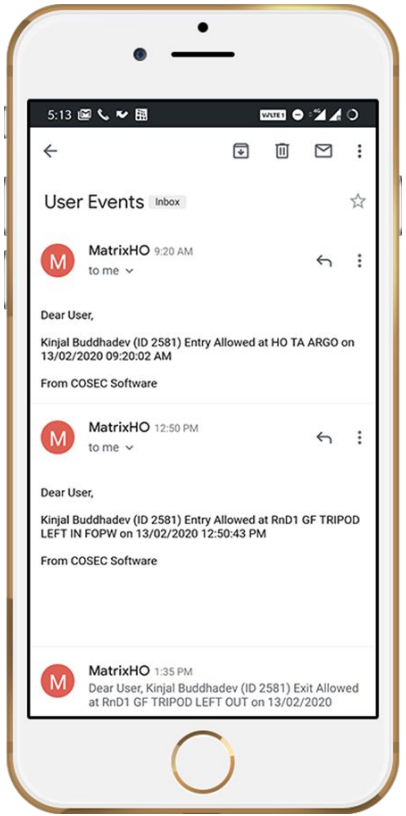
User-Wise In/Out Event from 01/07/2013 00:00 to 31/07/2013 23:59

Run by: System Admin Date: 7/10/2013 10:03

Sr No	Date	Time	Type	Panel/Door	Special Function
1 SALIM ANSARI					
1	02/07/2013	08:29	IN	Factory Panel-Production 1	
2	02/07/2013	12:20	IN	Factory Panel-Production- 2	
3	02/07/2013	15:13	IN	Factory Panel-Production- 2	
4	02/07/2013	15:22	IN	Factory Panel-Production- 2	
5	02/07/2013	17:02	IN	Factory Panel-Production- 2	
6	03/07/2013	08:28	IN	Factory Panel-Production- 2	
7	03/07/2013	12:09	IN	Factory Panel-Production 1	
8	03/07/2013	12:34	IN	Factory Panel-Production 1	
9	03/07/2013	15:00	OUT	Factory Panel-Production 1	Short Leave - OUT
10	04/07/2013	08:29	IN	Factory Panel-Production 1	
11	04/07/2013	12:09	IN	Factory Panel-Production 1	
12	04/07/2013	12:35	IN	Factory Panel-Production 1	
13	04/07/2013	17:03	IN	Factory Panel-Production 1	
14	05/07/2013	08:27	IN	Factory Panel-Production 1	
15	05/07/2013	12:17	IN	Factory Panel-Production 1	
16	05/07/2013	12:36	IN	Factory Panel-Production 1	
17	05/07/2013	17:02	IN	Factory Panel-Production 1	
18	06/07/2013	08:31	IN	Factory Panel-Production 1	
19	06/07/2013	12:10	IN	Factory Panel-Production 1	
20	06/07/2013	12:33	IN	Factory Panel-Production 1	
21	06/07/2013	16:03	IN	Factory Panel-Production 1	
22	08/07/2013	08:33	IN	Factory Panel-Production 1	
23	08/07/2013	12:27	IN	Factory Panel-Production 1	
24	08/07/2013	17:04	IN	Factory Panel-Production 1	
25	09/07/2013	08:29	IN	Factory Panel-Production 1	

Matrix ACS Differentiators: Alerts and Notifications

- Comprehensive and Programmable Alerts and Notifications
- Entry-Exit Events
- Access Violations and Exceptions
- Device Failures, etc.
- Notifications through Emails and SMS
- Quick Response to Security Violations and Exceptions



Matrix ACS Differentiators: Configuration Management

- Use Any Web Browser for System Configuration
- Configuration Backup
- Automatic and Manual Backup Options
- External Modem or Telephone/GSM Connection Not Needed
- Easy and Quick Configuration Restore
- Security of Configuration Data
- Compliance for Mission-Critical Applications

Panel Report

The COSEC system enables the user to extract a detailed listing of the configured Panel as shown in following reports.

Matrix Comsec Pvt. Ltd. Page 1 of 1

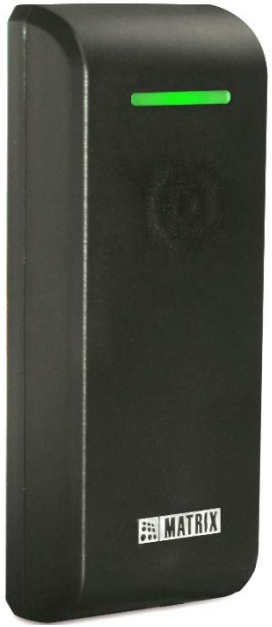
Panel

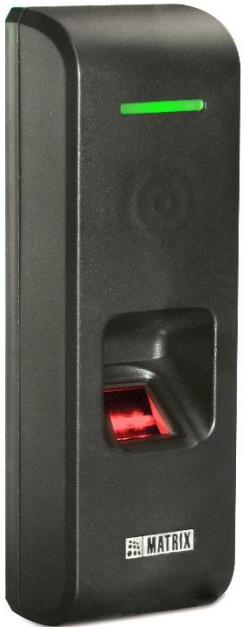
Run by: System Admin Date: 7/10/2013 15:06

Sr No	ID	Name	IP Address	Subnet Mask	MAC Address	Working Hrs	Break Hrs	Status
1	3	HO Panel Lite	192.168.50.202	255.255.255.0	00:1b:09:00:99:98	00:00-23:59	13:00-14:00	Active
2	4	Factory Panel	192.168.10.10	255.255.255.0	00:1b:09:aa:59:b9	00:00-23:59	13:00-14:00	Active

Matrix ACS Differentiators: IP65 Readers

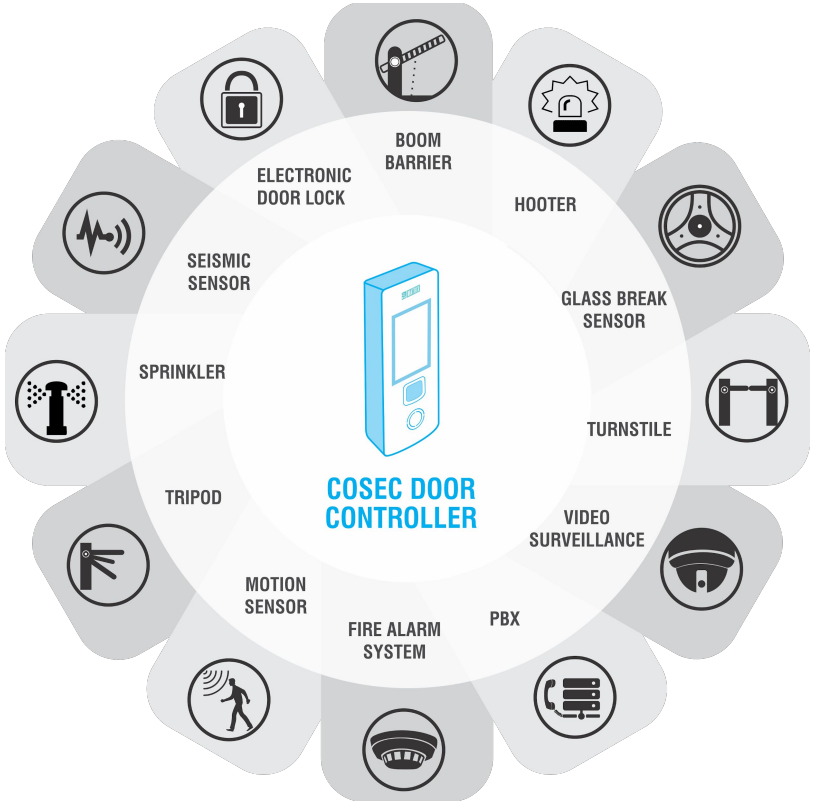
- COSEC PATH RDFX: IP65
- COSEC PATH RDCX: IP65
- Suitable for All Weather Conditions
- Tamper Detection





Matrix ACS Differentiators: Open System Integration

- Open API for Hardware Integration
- Integration with Fire Alarm, Video Surveillance, BMS, etc.
- Integration with Attendance, Payroll and ERP
- SNMP Support for Third-Party NMS
- Seamless Integration



Matrix ACS Differentiators: Additional Applications

- Time-Attendance
- Access Control
- Visitor Management
- Cafeteria Management
- Job Processing & Management
- Field Visit Management
- Contract Workers Management

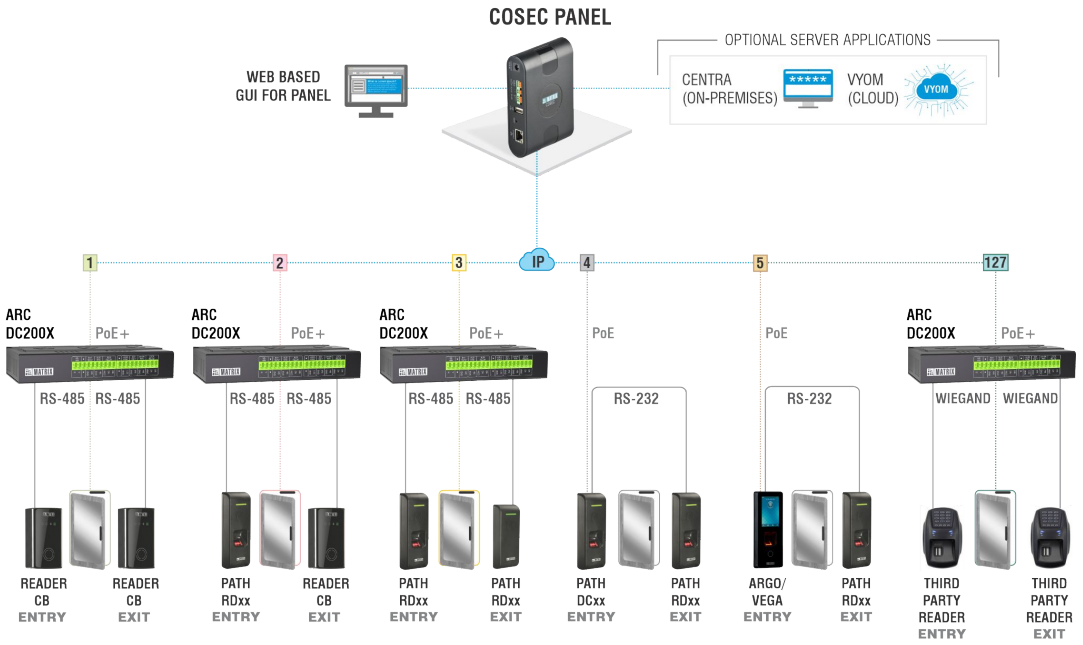
Storage Options

On-Premise

On-Cloud

Matrix ACS Differentiators: Scalability

- Panel as Site Control
- Normally, Single Panel per Site
- 1 to 255 Doors per Panel
- 1 to 25,000 Users per Panel
- COSEC CENTRA to Network Multiple Panels
- Centralized Control and Management

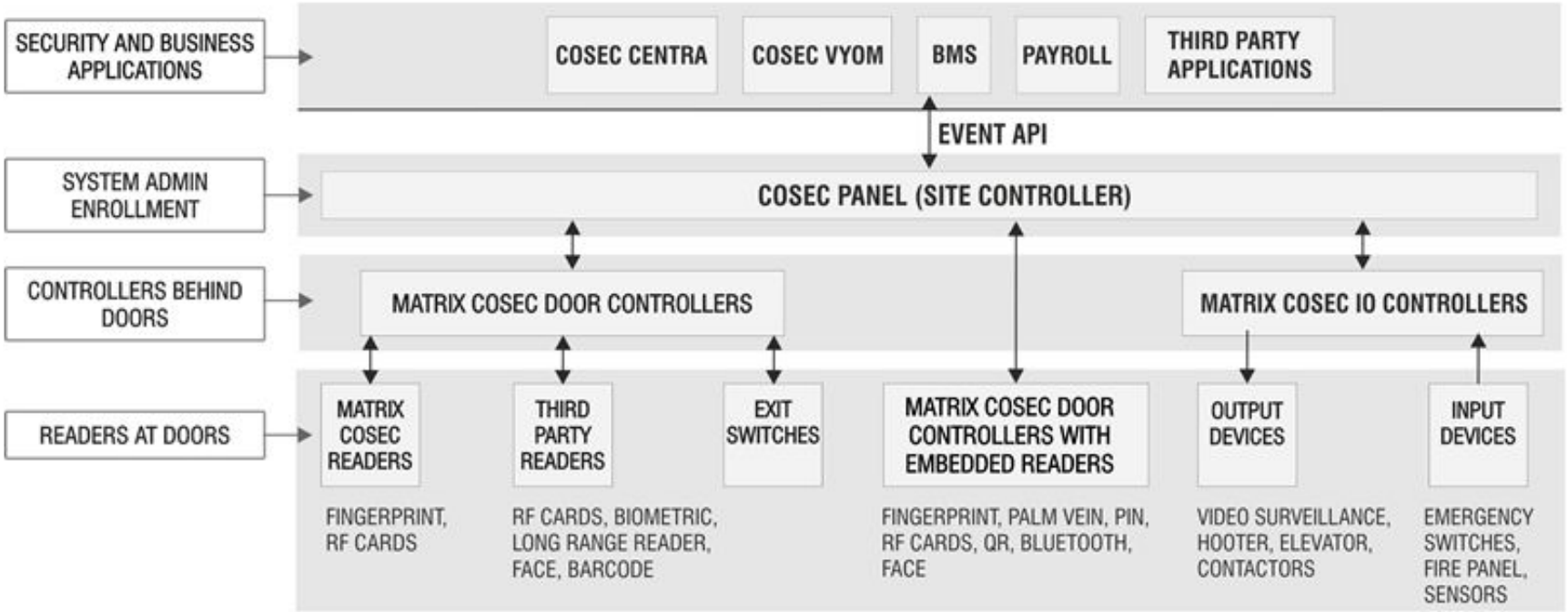


Matrix ACS Differentiators: Traditional v/s Matrix COSEC

TRADITIONAL ACCESS CONTROL	MATRIX ACCESS CONTROL
Traditional RFID Cards and PIN Credentials	Face Recognition, Fingerprint, RFID, Mobile, PIN and QR
PC and Software Installation Required	All-integrated, Self-contained Solution without Need for PC
Cabling: Bulky, Proprietary, Failure-prone and Expensive	CAT6 with PoE and PoE+
UPS and Batteries for Panels	Centralized Power and UPS
Limited Access Control Features	25+ Access Control Features

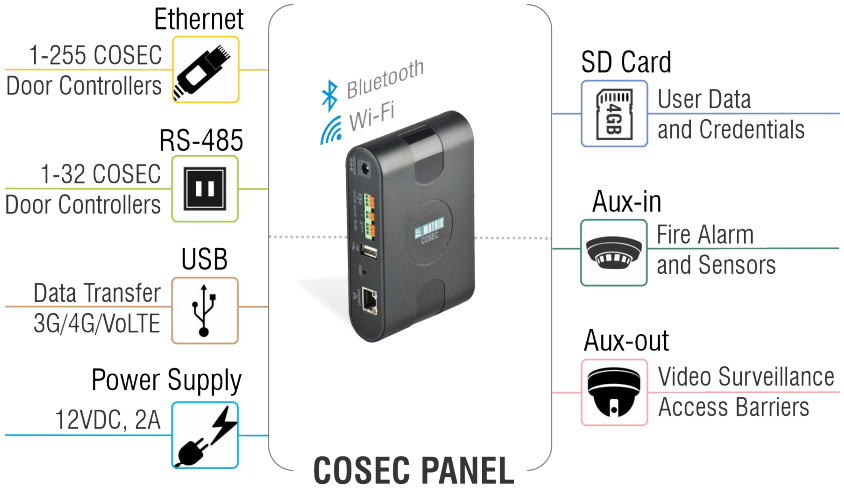
Matrix Access Control Architecture and Building Blocks

Matrix Access Control Architecture



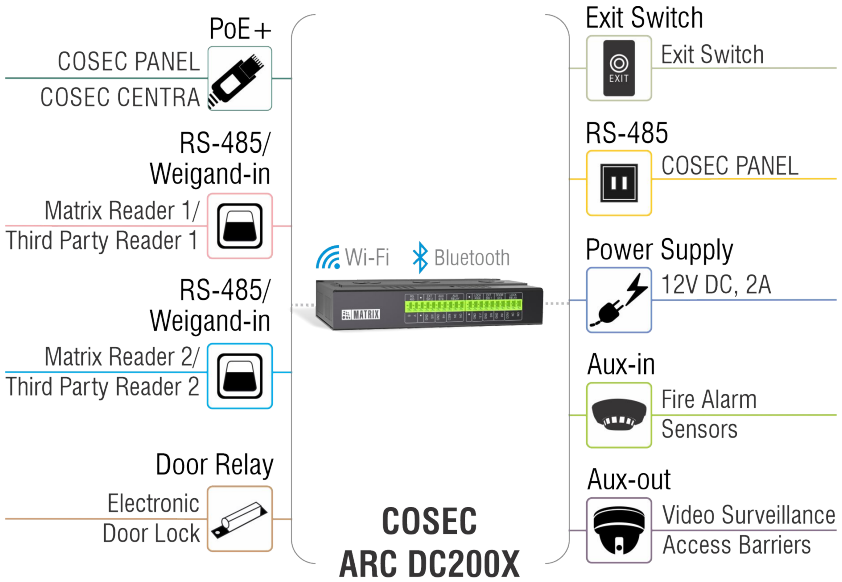
Matrix ACS Building Blocks: COSEC PANEL

- A Site Controller with Higher Capacity
- Manages Up-to 255 Doors, Up-to 25,000 Users and 500,000 Event Buffer
- Seamless Integration with Third-party Devices
- Built-in Wi-Fi and Bluetooth



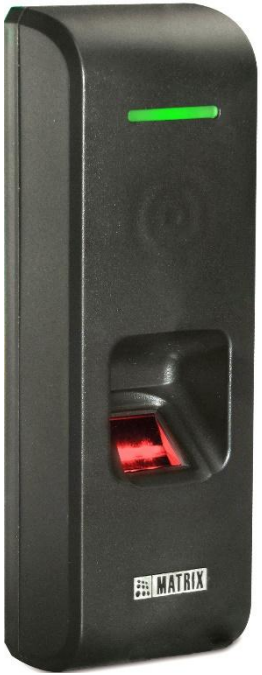
Matrix ACS Building Blocks: COSEC ARC DC200P

- Door Controller Designed on Distributed “Core-to-the-Door IP” Technology
- Higher Storage Capacity
- Secured Communication
- Built-in Wi-Fi and BLE



Matrix ACS Building Blocks: COSEC PATH RDFX

- Compact Fingerprint and RFID Card Reader
- Comes with IP65
- Easy to Install and Use
- RS-232 and RS-485
- Supports Proximity (EM Prox and HID Prox) and Smart (MIFARE® and HID iCLASS) Card



Matrix ACS Building Blocks: COSEC PATH RDCX

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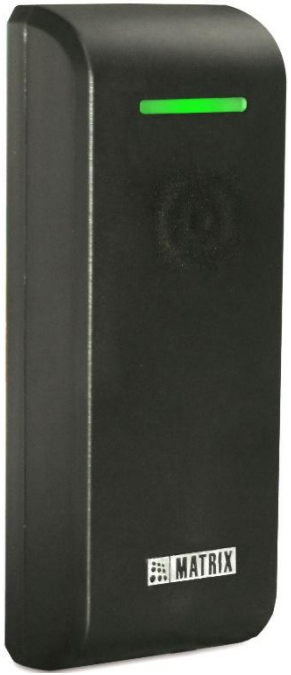


Matrix ACS Building Blocks: COSEC ATOM

- Bluetooth based Credentials
  - Your Mobile is Your Identity
  - Fast User Identification
- Multiple RFID Card Support
- PIN Support (Variant Dependent)
- Fingerprint

Matrix ACS Building Blocks: MOBILE APP ACS

- Perfect for Bluetooth based Access Control through Mobile
- Access by Shaking Mobile in the Range of Bluetooth Enabled Devices
- Your Mobile is Your Identity
- Use Your Phone Instead of Smart Card
- Android Version 5.0 and above
- iOS 9.0 and above

Matrix ACS Building Blocks: COSEC ARC IO800

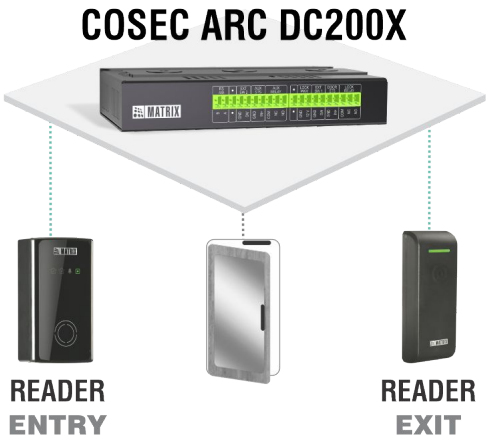
- Compact Input-Output Controller
- Elevator/Floor Access Control
- Seamless Integration with Third-party Devices such as Fire Alarm Bell, Motion Detector, EM Locks etc
- Door Interlocking Solution (Standalone Mode)

Matrix ACS Building Blocks: COSEC CENTRA/VYOM

- *COSEC CENTRA*: On-Premise, Single-Tenant Server Application
- *COSEC VYOM*: Cloud, Multi-Tenant Server Application
- Seamless Integration with Third-party Devices and Application/Payroll System

Matrix ACS DEPLOYMENT: TWO-WAY ACCESS

- Allows Entry and Exit Only to Authorized Users
- Requires Two Readers for Every Door
- One to Control Entry and the Second to Control Exit



CONNECTIVITY OPTIONS FOR READERS:

- **COSEC READER** - RS-232/RS-485
- **THIRD-PARTY READER** - WIEGAND

Matrix ACS DEPLOYMENT: ONE-WAY ACCESS

- Entry to Only Authorized Users
- Allows Everyone to Exit
- Requires a COSEC Reader at the Entrance and a Push-Button Switch at the Exit

CONNECTIVITY OPTIONS FOR READERS:

- **COSEC READER** - RS-232/RS-485
- **THIRD-PARTY READER** - WIEGAND

Matrix ACS Certifications

ISO 9001-20001-27001

CE

FC

RoHS COMPLIANT

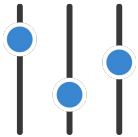
UL

MATRIX ACS FEATURES

MATRIX ACS Features: Access Zones, Access Modes etc.

Zone Specific Access: User can enter only designated zones

Access Mode: Control entry with a single or a combination of user credentials

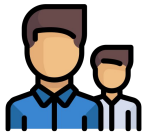


Access Level: Allow or restrict users based on their roles or levels

VIP Access: A user with VIP access can enter any controlled area

MATRIX ACS Features: First-in User Rule, Access Mode etc.

First-in User Rule: Normal users are allowed only after the designated first-in user has entered



Access Mode: Stops one individual to enter high-security area alone. Allows two people (from a predefined group) together if they enter within specified duration

Guard Tour: Requires security guards to show their credentials at sequential check posts at specified time periods

Centralized Monitoring and Control: Live status of all the controllers, alarms, input-output ports at one place. Also, control doors, alarms and user credentials from a central location

MATRIX ACS Features: Dead-man Zone, Access Route etc.

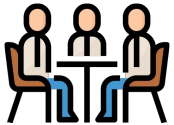
Dead-man Zone: Registers user's presence periodically to confirm the user is present and active. Ensures safety of an employee working in a hazardous environment

Anti-passback with Local/Global and Soft/Hard Options: Prevents second entry for a user until the user has exited to eliminate multiple entries using one user's credentials

Do Not Disturb (DND) Zone: Stops anyone entering a Do Not Disturb zone. Useful for private offices, meeting-conference rooms

Access Route: Forces users to follow predefined path to reach their destination. Prevents loitering or jaywalking

MATRIX ACS Features: Occupancy Control, Smart Identification etc.



Occupancy Control: Control the number of users allowed to enter a zone

Smart Identification: Stores users' credentials on the smart card (RF). COSEC first reads the user's credentials from the card and then prompts the user to show credentials

Blocked User: Suspend a user's access rights for a defined period

MATRIX ACS Features: Who's-In, Smart Identification etc.

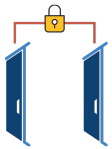
Time Stamping: Trigger video surveillance to take a snapshot of the person while accessing a door. Generate reports with such photographs

Who's-In: Allows security or admin to determine the users present inside a zone or building

Input-Output Linking: COSEC supports an additional layer of automated security by activating a designated output port or sending a notification when triggered by a pre-configured input or an event

MATRIX ACS Features: Mantrap, Door Interlocking etc.

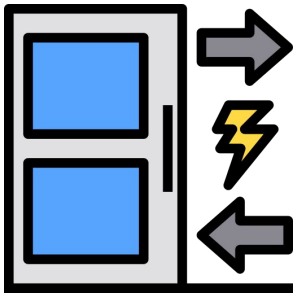
Mantrap: Many applications require arranging two or more doors in a proximity sequence to prevent direct air passage. The second door opens only after the first door has completely closed



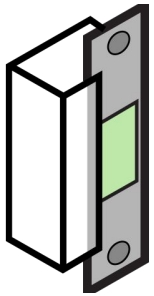
Door Interlocking: COSEC offers user-programmable flexible interlocking logic for multiple doors to meet complex, industry-specific needs such as R&D, pharma labs, semiconductor foundries, chemical plants, etc

Elevator Access Control: COSEC supports an additional layer of automated security by activating a designated output port or sending a notification when triggered by a pre-configured input or an event

MATRIX ACS: Doors, Locks and Barriers



Sliding Doors



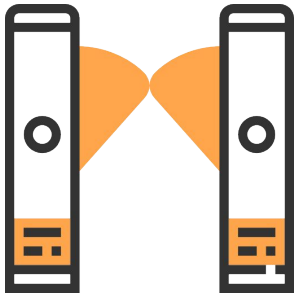
(EM) Magnetic Locks,

Electric Strikes ,

Bolt Locks,

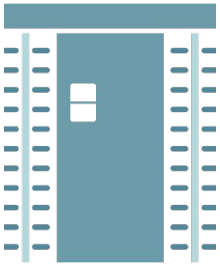
Electric Cylindrical Locks

Server Rack Cabinet Locks

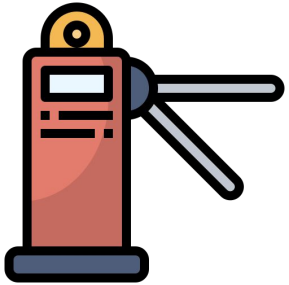


Speed gates, Flap Barrier, Swing Panels

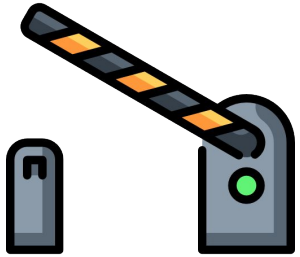
MATRIX ACS: Doors, Locks and Barriers



Glass Pass Turnstile



Tripod Turnstile



Boom Barrier

Matrix Access Control: Ordering Information

Ordering Information: COSEC ACS Kits

Sr No	Product Variants	Description	PANEL 200P	ARC DC200P	ATOM RD100M	PATH RDFM
1	ACS2DCM	2-Door Card based One Way ACS	1	1	2	
2	ACS4DCM	4-Door Card based One Way ACS	1	2	4	
3	ACS8DCM	8-Door Card based One Way ACS	1	4	8	
4	ACS2DFP	2-Door Fingerprint and Card based One Way ACS	1	1		2
5	ACS4DFP	4-Door Fingerprint and Card based One Way ACS	1	2		4
6	ACS8DFP	8-Door Fingerprint and Card based One Way ACS	1	4		8

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Ordering Information: Building Blocks

Sr. No.	Product Name	Description
1	COSEC PANEL200P	One Site Controller for Every Building or Location up to 255 Doors
2	COSEC ARC DC200P	One Controller For Every 2 Readers
3	COSEC ARC IO800	A Compact Input-Output Controller
4	COSEC ARGO	Door Controller with Built-in Fingerprint Reader and Card Readers with PoE, Wi-Fi, Bluetooth
5	COSEC VEGA XXX	Door Controller with Built-in Fingerprint Reader and Card Readers with PoE, Wi-Fi, Bluetooth
6	COSEC PATH DCXX	Door Controller with Fingerprint and RF Card Support
7	COSEC PATH RDXX	Reader with Fingerprint and RF Card Support
8	COSEC ATOM	Contactless Reader with Bluetooth Credentials & Card Credentials

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